Amendm nt to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A structured document managing method of managing a structured document formed by a plurality of elements, comprising:

a data content updating step in which any file forming a registered document is selected as an object of updating from relationship data indicating <u>relationship between </u>an entity structure and a logical structure of the registered document and the data content of the selected update object file is updated;

a partial relationship data generating step of generating partial relationship data indicating <u>relationship between </u>an entity structure and a logical structure of the update object file after updating; and

a relationship data updating step of updating relationship data of the registered document<u>, when the entity structure of said registered document is</u> <u>updated based on updated information included in </u>~~by use of~~ the generated partial relationship data<u>, by updating said logical structure of the registered document</u> <u>corresponding to the updated entity structure of said registered document</u>.

2.   (Original) A structured document managing method according to Claim 1, wherein in said data content updating step, the data content of said update object

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file is subjected to edition by an external program and is thereafter replaced by data content after updating edited by said external program.

3. (Original) A structured document managing method according to Claim 1 or 2, wherein the generation of the partial relationship data in said partial relationship data generating step is made by analyzing the update object file after updating in the case where said update object file is a document file or a text file and by setting the data content after updating itself in the case where said update object file is neither a document file nor a text file.

4. (Original) A structured document managing method according to Claim 3, further comprising a document syntax analyzing step of generating syntax analysis result data indicating a file structure and parsed instance data of said update object file, and a relationship data extracting step of associating each file forming said update object file with a logical structure portion obtained by the parsed instance data to generate partial relationship data.

5. (Original) A structured document managing method according to Claim 1, further comprising a corresponding sub-region determining step of determining that sub-region of the relationship data of the registered document which corresponds to said update object file, and wherein in said relationship data updating step, the relationship data of the registered document is updated by replacing

relationship data of the determined sub-region by said partial relationship data of said update object file.

6. (Original) A structured document managing method according to Claim 1, wherein a lock is set for said update object file to exclusively perform an edition processing for said update object file.

7. (Currently Amended) A structured document managing method of managing a structured document described by use of a document markup language, comprising:

a logical structure editing step of selecting any logical structure of a registered document as an object of updating from relationship data indicating relationship between an entity structure and a logical structure of the registered document registered document, and subjecting the selected logical structure to edition;

an edition result data generating step of generating edition result data in which partial relationship data indicating relationship between an entity structure and a logical structure of a file existing in the region of said logical structure subjected to edition is described in a character string form;

a corresponding data content updating step of replacing the data content of said file by the generated edition result data; and

a relationship data updating step of updating said relationship data indicating relationship between the entity structure and the logical structure of the registered document by use of the generated partial relationship data.

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8. (Original) A structured document managing method according to Claim 7, further comprising a corresponding sub-region determining step of determining that sub-region of the relationship data of the registered document which corresponds to said file, and wherein in said relationship data updating step, the relationship data of the registered document is updated by replacing relationship data of the determined sub-region by said partial relationship data of said file.

9. (Original) A structured document managing method according to Claim 7 or 8, wherein a lock is set for a file in the region of said update object logical structure to exclusively perform an edition processing for said file.

10. (Original) A structured document managing method according to Claim 7, wherein the control of access to the object of updating is made, for each node set established corresponding to a file structure possessed by the registered document, in accordance with an attribute of that node set.

11. (Original) A structured document managing method according to Claim 1, wherein a processing for updating is made with an object of edition taken out in units of a file forming the registered document.

12. (Original) A structured document managing method according to Claim 1, wherein the edition of the registered document is made by taking out a plurality of

objects of edition separately so that they are subjected to edition in parallel with each other and registering the objects of edition after updating again.

13.   (Original) A structured document managing method according to Claim 1, wherein a digital signature is applied to a file forming the object of edition after updating.

14.   (Original) A structured document managing method according to Claim 1, comprising a document syntax analyzing step of generating syntax analysis result data indicating a file structure and parsed instance data of a document made an object of registration, and a relationship data extracting step of associating each file forming the registration object document with a logical structure portion obtained by the parsed instance data to generate partial relationship data which indicates an entity structure and a logical structure of the registration object document.

15.   (Original) A structured document managing method according to Claim 14, wherein node sets corresponding to a file structure possessed by the registration object document are established and each of said node sets is applied with an attribute which is possessed by the corresponding file and taken over therefrom.

16.   (Original) A structured document managing method according to Claim 1, wherein a digital signature applied to a file forming the registration object document is registered together with the data content of that file.

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17. (Currently Amended) A structured document managing system for managing a structured document formed by use of a document markup language, comprising:

a data content update processing unit with which any file forming a registered document is selected as an object of updating from relationship data indicating relationship between an entity structure and a logical structure of the registered document and the data content of the selected update object file is updated;

a partial relationship data generation processing unit for generating partial relationship data indicating relationship between an entity structure and a logical structure of the update object file after updating; and

a relationship data update processing unit for updating relationship data of the registered document by use of, when the entity structure of said registered document is updated based on updated information included in the generated partial relationship data, by updating said logical structure of the registered document corresponding to the updated entity structure of said registered document.

18. (Currently Amended) A structured document managing system for managing a structured document described by use of a document markup language, comprising:

a logical structure edition processing unit for selecting any logical structure of a registered document as an object of updating from relationship data indicating relationship between an entity structure and a logical structure of the registered

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~~document~~ registered document, and subjecting the selected logical structure to edition;

an edition result data generation processing unit for generating edition result data in which partial relationship data indicating relationship between an entity structure and a logical structure of a file existing in the region of said logical structure subjected to edition is described in a character string form;

a corresponding data content update processing unit for replacing the data content of said file by the generated edition result data; and

a relationship data update processing unit for updating said relationship data indicating relationship between the entity structure and the logical structure of the registered document by use of the generated partial relationship data.

19.   (Currently Amended) A medium in which a program for causing a computer to function as a structured document managing system for managing a structured document formed by use of a document markup language is recorded, the recorded program causing the computer to function as a data content update processing unit with which any file forming a registered document is selected as an object of updating from relationship data indicating relationship between an entity structure and a logical structure of the registered document and the data content of the selected update object file is updated, a partial relationship data generation processing unit for generating partial relationship data indicating relationship between an entity structure and a logical structure of the update object file after updating, and a relationship data update processing unit for updating relationship

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data of the registered document ~~by use of~~, when the entity structure of said registered document is updated based on updated information included in the generated partial relationship data, by updating said logical structure of the registered document corresponding to the updated entity structure of said registered document.

20. (Currently Amended) A medium in which a program for causing a computer to function as a structured document managing system for managing a structured document described by use of a document markup language is recorded, the recorded program causing the computer to function as a logical structure edition processing unit for selecting any logical structure of a registered document as an object of updating from relationship data indicating relationship between an entity structure and a logical structure of the ~~registered document~~ registered document, and subjecting the selected logical structure to edition, an edition result data generation processing unit for generating edition result data in which partial relationship data indicating relationship between an entity structure and a logical structure of a file existing in the region of said logical structure subjected to edition is described in a character string form, a corresponding data content update processing unit for replacing the data content of said file by the generated edition result data, and a relationship data update processing unit for updating said relationship data indicating relationship between the entity structure and the logical structure of the registered document by use of the generated partial relationship data.